Patent Claims

1. Triazolopyrimidines of the formula

in which

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- R1 represents amino, represents in each case optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, alkenyloxy, alkynyloxy, cycloalkyloxy, alkylamino, dialkylamino, alkenylamino, alkynylamino, cycloalkylamino, N-cycloalkyl-N-alkylamino, alkylideneamino or heterocyclyl, and
- R² represents hydrogen or represents in each case optionally substituted alkyl, alkenyl, alkynyl or cycloalkyl, or
- R¹ and R² together with the nitrogen atom to which they are attached form an optionally substituted heterocyclic ring,
- 20 R³ represents aryl which is optionally mono- to tetrasubstituted,
 - R⁴ represents halogen, cyano or represents in each case optionally substituted alkoxy or dialkylamino and
- 25 X represents halogen.

- 2. Process for preparing triazolopyrimidines of the formula (I) according to Claim 1, characterized in that
 - (a) dihalotriazolopyrimidines of the formula

in which

 R^3 , R^4 and X are as defined above and

Y¹ represents halogen,

are reacted with an amine of the formula

$$R^{1}$$
 N
 R^{2}
 H
 (III)

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in which

R¹ and R² are as defined above,

- if appropriate in the presence of a diluent and if appropriate in the presence of an acid acceptor.
 - 3. Composition for controlling unwanted microorganisms, characterized in that it comprises at least one triazolopyrimidine of the formula (I) according to Claim 1, in addition to extenders and/or surfactants.

- 4. Use of triazolopyrimidines of the formula (I) according to Claim 1 for controlling unwanted microorganisms.
- 5. Method for controlling unwanted microorganisms, characterized in that triazolopyrimidines of the formula (I) according to Claim 1 are applied to the unwanted microorganisms and/or their habitat.
- 6. Process for preparing compositions for controlling unwanted microorganisms, characterized in that triazolopyrimidines of the formula (I) according to Claim 1 are mixed with extenders and/or surfactants.
- 7. Dihalotriazolopyrimidines of the formula

in which

 R^3 , R^4 and X are as defined above and

Y¹ represents halogen.

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8. Process for preparing dihalotriazolopyrimidines of the formula (II) according to Claim 7, characterized in that

(b) dihydroxytriazolopyrimidines of the formula

$$R^3$$
 N
 N
 R^4
 (IV)

in which

 R^3 and R^4 are as defined above

are reacted with halogenating agents, if appropriate in the presence of a diluent.

9. Dihydroxytriazolopyrimidines of the formula

$$R^3$$
 N
 N
 R^4
 (IV)

in which

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 R^3 and R^4 are as defined above.

10. Process for preparing dihydroxytriazolopyrimidines of the formula (IV) according to Claim 9, characterized in that

(c) arylmalonic esters of the formula

$$R^3$$
 $COOR^5$
 (V)

in which

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R³ is as defined above and

R⁵ represents alkyl having 1 to 4 carbon atoms

are reacted with aminotriazoles of the formula

$$H_2N$$
 N
 R^4
(VI)

in which

15 R⁴ is as defined above,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid binder.

20 11. Aminotriazoles of the formula

in which

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- R⁶ represents cyano or bromine.
- 12. Process for preparing aminotriazoles of the formula (VI) according to Claim 11, characterized in that diaminotriazole of the formula

is initially diazotized and then reacted with a brominating agent or a cyanating agent, if appropriate in the presence of a diluent and if appropriate in the presence of further reaction auxiliaries.

Triazolopyrimidines

Abstract

Novel triazolopyrimidines of the formula

in which

- R1 represents amino, represents in each case optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, alkenyloxy, alkynyloxy, cycloalkyloxy, alkylamino, dialkylamino, alkenylamino, alkynylamino, cycloalkylamino, N-cycloalkyl-N-alkylamino, alkylideneamino or heterocyclyl, and
- R² represents hydrogen or represents in each case optionally substituted alkyl, alkenyl, alkynyl or cycloalkyl, or
- R¹ and R² together with the nitrogen atom to which they are attached form an optionally substituted heterocyclic ring,
- R³ represents aryl which is optionally mono- to tetrasubstituted,
- R⁴ represents halogen, cyano or represents in each case optionally substituted alkoxy or dialkylamino and

X represents halogen,

a process for preparing these novel substances and their use for controlling unwanted microorganisms.

Novel intermediates of the formulae

$$R^3$$
 N
 N
 R^4
 (IV)

and
$$N = \mathbb{R}^6$$
 (VIa),

and processes for their preparation.